# STUDIES IN THE TREATMENT OF MALARIA

## XVIII. A COMPARISON OF THE VALUE OF *CONTINUOUS* AND *INTERRUPTED* QUININE ADMINISTRATION IN SIMPLE TERTIAN MALARIA

### (SECOND COMMUNICATION)

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In a previous study (1918) we have shown to what extent relapses can be prevented during the course of the treatment by *interrupted* administration of quinine, i.e. administration on each of two consecutive days weekly. The present series of observations were conducted in order to ascertain whether a certain amount of quinine weekly is better given in small doses divided over six or seven days each week (*continuous* treatment) or in larger doses given on two consecutive days only each week (*interrupted* treatment). For example, assuming the total amount of quinine to be given each week be grains 30, is it better to administer grains 5 on each of six consecutive days, or grains 15 on each of two consecutive days, weekly?

To determine this question two series of observations were conducted :—

1. Total weekly dose of quinine sulphate, grains 30.
    A. Quinine sulphate grains 5 on each of six consecutive days weekly, for eight weeks.
    B. Quinine sulphate grains 15 on each of two consecutive days weekly, for eight weeks.
2. Total weekly dose of quinine sulphate, grains 90.
    C. Quinine sulphate grains 15 on each of six consecutive days weekly, for eight weeks.
    D. Quinine sulphate grains 45 on each of two consecutive days weekly, for eight weeks.

All the cases were adult males infected for the most part either in Macedonia or in East Africa. In every instance a diagnosis of simple tertian malaria was made microscopically, and in all cases parasites were present in the blood on the day treatment was commenced. Blood examinations in the majority of cases were made daily until parasites disappeared from the blood, and subsequently once weekly and also whenever the temperature reached 100° F. or over, which in this, as in previous papers, is regarded as a febrile paroxysm—slight elevations of temperature not reaching 100° F. being ignored.

The records of the observations are given in the tables at the end of the paper. In these tables and in the charts :

| | | |
|---|---|---|
| 0 | = | absence of fever and parasites. |
| 1, 2, etc. | = | number of parasitic febrile relapses weekly. |
| 1*, 2*, etc. | = | number of non-parasitic febrile attacks weekly. |
| P. | = | non-febrile parasitic relapse. |
| Q.O. | = | quinine sulphate orally. |
| T. | = | simple tertian trophozoites or schizonts. |
| G. | = | simple tertian gametes. |
| cr. | = | malignant tertian gametes. |
| Neg. | = | no parasites found. |

Note.—A rise of temperature above 100° F., of which the nature is unknown, is termed a *febrile attack*. A similar rise of temperature accompanied by parasites in the blood at the time, or within three days, is termed a *parasitic febrile relapse* or *true relapse*. The term *paroxysm* is used indifferently to denote any febrile disturbance of 100° F. or more.

As we have pointed out elsewhere, the effect of any treatment may be considered from two points of view: (1) the *palliative* action, i.e. the degree to which symptoms are controlled, and the blood kept free from parasites during the treatment; and (2) the *curative* action, i.e. whether or no relapses occur during the observation period* after cessation of treatment. In order that the palliative results obtained in the various series of observations may have a comparative value, it is necessary to express the number of cases having true relapses and of those having febrile attacks, as percentages of the total cases undergoing treatment in any particular week. In Tables I-VIII the following sets of figures, each having a comparative value, are given:—

1. The number of cases which had each week, over a period of eight weeks, parasitic febrile relapses, expressed as percentages of all cases treated.

2. The number of parasitic febrile relapses experienced each week, over a period of eight weeks, by each parasitic febrile relapse case.

3. The number of cases which had each week, over a period of eight weeks, febrile paroxysms (parasitic and non-parasitic), expressed as percentages of all cases treated.

4. The number of febrile paroxysms (parasitic and non-parasitic) experienced each week, over a period of eight weeks, by each febrile (parasitic and non-parasitic) case.

## GRAINS 30 SERIES

### A. Grains 5 on each of six consecutive days weekly (Cases 923-969)

In four of the forty-seven cases treatment was commenced during an apyrexial period. In forty of the remaining forty-three the temperature fell to normal in one to five days, whilst in three cases (Nos. 925, 967 and 969) the temperature was uncontrolled.

In thirty-four cases parasites disappeared from the cutaneous blood in one to five days, whilst in the remaining thirteen cases parasites persisted practically throughout treatment (*vide* Chart 946 and Table XI).

* This, as in all our previous papers, is 60 days—an entirely arbitrary period.

*Relapses.*

*During treatment.* In eight of the forty-seven cases, owing to the severity of the relapses and the grave clinical condition of the patients, it was found impossible to continue the treatment for the full period of eight weeks, e.g. in Case 962 treatment had to be changed in the seventh week, in Cases 963 (*vide* Chart) and 964 in the fifth week, in Cases 965 (*vide* Chart) and 966 in the third week, and in Cases 967 to 969 in the second week. Consequently the number of cases under treatment was in the first week 47, and in the eighth week 39 (Table XI). The average weekly number, over a period of eight weeks, of cases which had (1) parasitic febrile relapses was 15·1 per cent. of cases treated, (2) non-parasitic febrile attacks 10·9 per cent., and (3) febrile paroxysms (both parasitic and non-parasitic) 26·0 per cent. (Tables I and II).

TABLE I.

Summary of results of oral administration of quinine sulphate in solution, grains 5, on each of six consecutive days weekly for 8 weeks.

| Week of Treatment | 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th |
|---|---|---|---|---|---|---|---|---|
| **Number of cases treated ... ...** | **47** | **47** | **44** | **42** | **42** | **40** | **40** | **39** |
| Number of cases having parasitic febrile relapses ... ... ... ... ... | 5 | 13 | 15 | 6 | 5 | 6 | 3 | 0 |
| Number of cases having non-parasitic febrile attacks ... ... ... | 1 | 4 | 3 | 2 | 4 | 9 | 8 | 5 |
| **Grand total of all febrile cases ...** | **6** | **17** | **18** | **8** | **9** | **15** | **11** | **5** |
| Total number of parasitic febrile relapses | 12 | 32 | 24 | 11 | 13 | 14 | 7 | 0 |
| Total number of non-parasitic febrile attacks ... ... ... ... ... | 1 | 6 | 7 | 3 | 7 | 13 | 11 | 10 |
| **Grand total of all febrile paroxysms ... ... ... ...** | **13** | **38** | **31** | **14** | **20** | **27** | **18** | **10** |

Table II.

Analysis of Table I.

| Week of Treatment | 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | Average per week |
|---|---|---|---|---|---|---|---|---|---|
| Percentage of parasitic febrile relapse cases per cases treated ... ... ... | 10·6 | 27·7 | 34·1 | 14·3 | 11·9 | 15·0 | 7·5 | 0 | **15·1** |
| Number of parasitic febrile relapses per parasitic febrile relapse case ... ... | 2·4 | 2·5 | 1·6 | 1·8 | 2·6 | 2·3 | 2·3 | 0 | **1·9** |
| Percentage of all febrile (parasitic and non-parasitic) cases per cases treated ... | 12·8 | 36·2 | 40·9 | 19·0 | 21·4 | 37·5 | 27·5 | 12·8 | **26·0** |
| Number of all febrile (parasitic and non-parasitic) paroxysms per febrile case ... | 2·2 | 2·2 | 1·7 | 1·7 | 2·2 | 1·8 | 1·6 | 2·0 | **1·9** |

*After treatment.* Thirty of the thirty-nine cases observed after cessation of treatment relapsed within the sixty-day observation period. Parasites reappeared in one to fifty-eight days, and febrile relapses occurred in one to twenty-six days, after cessation of treatment. In eight of the cases (Nos. 962-969) the full course of treatment was not completed, as owing to relapses it was found necessary to alter the treatment. These cases therefore should be added to the cases that relapsed, making the total number of failures thirty-eight (81 per cent.). In one of the nine cases which did not relapse the observation period after treatment was less than sixty days, viz., in Case 932, twenty-one days (Table XI). Consequently the minimum number of relapses is 81 per cent. and the possible maximum 83 per cent.

**B. Grains 15 on each of two consecutive days weekly (Cases 970-1034)**

In nine of the sixty-five cases treatment was commenced during an apyrexial period; in the remaining fifty-six cases the temperature fell to normal in one to five days. In forty cases parasites disappeared from the cutaneous blood in one to four days; in the remaining twenty-five cases the examinations were too infrequent to give an exact figure (Table XII).

*Relapses.*

*During treatment.* In all the sixty-five cases treatment was continued during the full period of eight weeks, although several of

the cases had many parasitic rigors during treatment (*vide* Chart 980). The average weekly number, over a period of eight weeks, of cases which had (1) parasitic febrile relapses was 7·5 per cent. of cases treated, (2) non-parasitic febrile attacks 9·4 per cent., and (3) febrile paroxysms (both parasitic and non-parasitic) 16·9 per cent. (Tables III and IV).

TABLE III.

Summary of results of oral administration of quinine sulphate in solution, grains 15, on each of two consecutive days weekly, for 8 weeks.

| Week of Treatment | 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th |
|---|---|---|---|---|---|---|---|---|
| **Number of cases treated ... ...** | **65** | **65** | **65** | **65** | **65** | **65** | **65** | **65** |
| Number of cases having parasitic febrile relapses ... ... ... ... | 0 | 2 | 11 | 3 | 5 | 6 | 6 | 6 |
| Number of cases having non-parasitic febrile attacks ... ... ... | 6 | 8 | 5 | 6 | 5 | 2 | 9 | 7 |
| **Grand total of all febrile cases ...** | **6** | **10** | **16** | **9** | **10** | **8** | **15** | **13** |
| Total number of parasitic febrile relapses | 0 | 5 | 26 | 5 | 6 | 6 | 9 | 14 |
| Total number of non-parasitic febrile attacks ... ... ... ... | 10 | 10 | 8 | 9 | 6 | 3 | 10 | 9 |
| **Grand total of all febrile paroxysms ... ... ... ...** | **10** | **15** | **34** | **14** | **12** | **9** | **19** | **23** |

TABLE IV.

Analysis of TABLE III.

| Week of Treatment | 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | Average per week |
|---|---|---|---|---|---|---|---|---|---|
| Percentage of parasitic febrile relapse cases per cases treated ... ... ... | 0 | 3·1 | 17·0 | 4·6 | 7·7 | 9·2 | 9·2 | 9·2 | **7·5** |
| Number of parasitic febrile relapses per parasitic febrile relapse case ... ... | 0 | 2·5 | 2·4 | 1·7 | 1·2 | 1·0 | 1·5 | 2·3 | **1·6** |
| Percentage of all febrile (parasitic and non-parasitic) cases per cases treated ... | 9·2 | 15·4 | 24·6 | 13·9 | 15·4 | 12·3 | 23·1 | 20·0 | **16·9** |
| Number of all febrile (parasitic and non-parasitic) paroxysms per febrile case ... | 1·7 | 1·5 | 2·1 | 1·6 | 1·2 | 1·1 | 1·3 | 1·8 | **1·5** |

*After treatment.* Forty-nine of the sixty-two* cases observed after cessation of treatment relapsed within the sixty-day observation period. Parasites reappeared in one to fifty-six days and febrile relapses occurred in one to fifty-six days. In three of the thirteen cases which did not relapse the observation period after treatment was less than sixty days, viz., in Case 1002, forty-two days; in Case 1027, fifty days; and in Case 1033, fifty-four days (Table XII). Consequently the minimum number of relapses is 79 per cent., and the possible maximum 84 per cent.

## GRAINS 90 SERIES

### C. Grains 15 on each of six consecutive days weekly (Cases 1035-1083)

In five of the forty-nine cases treatment was commenced during an apyrexial period; in the remaining forty-four cases the temperature fell to normal within four days. In twenty-six cases parasites disappeared from the cutaneous blood in one to three days; in the remaining cases the examinations were too infrequent to give an exact figure (Table XIII).

*Relapses.*

*During treatment.* In one case (No. 1083), owing to the severity of the relapses, it was found necessary to alter the treatment at the end of the seventh week; in all others the treatment was continued for the full period of eight weeks. Consequently the number of cases under treatment was in the first week forty-nine, and in the eighth week forty-eight (Table XIII). The average weekly number, over a period of eight weeks, of cases which had (1) parasitic febrile relapses was 4·1 per cent. of cases treated, (2) non-parasitic febrile attacks 9·7 per cent., and (3) febrile paroxysms (both parasitic and non-parasitic) 13·8 per cent. (Tables V and VI).

* Three cases (Nos. 973, 1011 and 1029) were not observed after cessation of treatment.

TABLE V.

Summary of results of oral administration of quinine sulphate in solution, grains 15, on each of six consecutive days weekly for 8 weeks.

| Week of Treatment | 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th |
|---|---|---|---|---|---|---|---|---|
| **Number of cases treated ... ...** | **49** | **49** | **49** | **49** | **49** | **49** | **49** | **48** |
| Number of cases having parasitic febrile relapses ... ... ... ... | 1 | 1 | 3 | 2 | 2 | 2 | 3 | 2 |
| Number of cases having non-parasitic febrile attacks ... ... ... | 2 | 5 | 3 | 5 | 3 | 10 | 8 | 2 |
| **Grand total of all febrile cases ...** | **3** | **6** | **6** | **7** | **5** | **12** | **11** | **4** |
| Total number of parasitic febrile relapses | 1 | 3 | 8 | 3 | 2 | 4 | 7 | 3 |
| Total number of non-parasitic febrile attacks ... ... ... ... | 3 | 5 | 4 | 5 | 3 | 13 | 8 | 2 |
| **Grand total of all febrile paroxysms ... ... ... ...** | **4** | **8** | **12** | **8** | **5** | **17** | **15** | **5** |

TABLE VI.

Analysis of TABLE V.

| Week of Treatment | 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | Average per week |
|---|---|---|---|---|---|---|---|---|---|
| Percentage of parasitic febrile relapse cases per cases treated ... ... ... | 2·0 | 2·0 | 6·1 | 4·1 | 4·1 | 4·1 | 6·1 | 4·2 | **4·1** |
| Number of parasitic febrile relapses per parasitic febrile relapse case ... ... | 1·0 | 3·0 | 2·7 | 1·5 | 1·0 | 2·0 | 2·3 | 1·5 | **1·9** |
| Percentage of all febrile (parasitic and non-parasitic) cases per cases treated ... | 6·1 | 12·2 | 12·2 | 14·3 | 10·2 | 24·5 | 22·4 | 8·3 | **13·8** |
| Number of all febrile (parasitic and non-parasitic) paroxysms per febrile case ... | 1·3 | 1·3 | 2·0 | 1·1 | 1·0 | 1·4 | 1·4 | 1·2 | **1·3** |

*After treatment.* Twenty-nine of the forty-six* cases observed after cessation of treatment relapsed within the sixty-day observation period. Parasites reappeared in one to fifty-six days and febrile relapses occurred in one to forty-five days after cessation of treatment. One case (No 1083) did not complete the full course of eight weeks' treatment as the condition was uncontrolled. This case, therefore, should be added to the cases that relapsed, making the total number of failures thirty (64 per cent.). In one of the seventeen cases which did not relapse the observation period after treatment was less than sixty days, viz., in Case 1078, fifty days (Table XIII). Consequently the minimum number of relapses is 64 per cent. and the possible maximum 66 per cent.

**D. Grains 45 on each of two consecutive days weekly (Cases 1084-1157)**

In thirteen of the seventy-four cases treatment was commenced during an apyrexial period; in the remaining sixty-one cases the temperature fell to normal within four days.

In fifty-eight cases parasites disappeared from the cutaneous blood in one to four days; in the remaining cases the examinations were too infrequent to give an exact figure (Table XIV).

*Relapses.*

*During treatment.* In all the seventy-four cases treatment was continued during the full period of eight weeks. The average weekly number, over a period of eight weeks, of cases which had (1) parasitic febrile relapses was 1·8 per cent. of cases treated, (2) non-parasitic febrile attacks 8·5 per cent., and (3) febrile paroxysms (both parasitic and non-parasitic) 10·3 per cent. (Tables VII and VIII).

* Two cases (Nos. 1040 and 1076) were not observed after treatment.

TABLE VII.

Summary of results of oral administration of quinine sulphate in solution, grains 45, on each of two consecutive days weekly for 8 weeks.

| Week of Treatment | 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th |
|---|---|---|---|---|---|---|---|---|
| **Number of cases treated ... ...** | **74** | **74** | **74** | **74** | **74** | **74** | **74** | **74** |
| Number of cases having parasitic febrile relapses ... ... ... ... | 0 | 0 | 4 | 1 | 2 | 1 | 2 | 1 |
| Number of cases having non-parasitic febrile attacks ... ... ... | 3 | 4 | 8 | 6 | 6 | 8 | 9 | 6 |
| **Grand total of all febrile cases ...** | **3** | **4** | **12** | **7** | **8** | **9** | **11** | **7** |
| Total number of parasitic febrile relapses | 0 | 0 | 7 | 2 | 4 | 1 | 3 | 1 |
| Total number of non-parasitic febrile attacks ... ... ... ... | 3 | 5 | 11 | 9 | 10 | 11 | 16 | 8 |
| **Grand total of all febrile paroxysms ... ... ... ...** | **3** | **5** | **18** | **11** | **14** | **12** | **19** | **9** |

TABLE VIII.

Analysis of TABLE VII.

| Week of Treatment | 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | Average per week |
|---|---|---|---|---|---|---|---|---|---|
| Percentage of parasitic febrile relapse cases per cases treated ... ... ... | 0 | 0 | 5·4 | 1·3 | 2·7 | 1·3 | 2·7 | 1·3 | **1·8** |
| Number of parasitic febrile relapses per parasitic febrile relapse case ... ... | 0 | 0 | 1·7 | 2·0 | 2·0 | 1·0 | 1·5 | 1·0 | **1·1** |
| Percentage of all febrile (parasitic and non-parasitic) cases per cases treated ... | 4·0 | 5·4 | 16·2 | 9·4 | 10·8 | 12·1 | 14·8 | 9·4 | **10·3** |
| Number of all febrile (parasitic and non-parasitic) paroxysms per febrile case ... | 1·0 | 1·2 | 1·5 | 1·6 | 1·7 | 1·3 | 1·7 | 1·3 | **1·4** |

*After treatment.* Fifty-seven of the seventy-one† cases observed after cessation of treatment relapsed within the sixty-day observation period. Parasites reappeared in one to forty-seven days, and febrile relapses occurred in three to forty-eight days after cessation of treatment. One case (No. 1091) relapsed after the expiration of the period, and is therefore not included among the relapses. In three of the fourteen cases which did not relapse the observation period was less than sixty days, viz., in Case 1115, thirty-one days; in Case 1141, forty days; and in Case 1144, fifty-four days (Table XIV). Consequently the minimum number of relapses is 80 per cent. and the possible maximum 85 per cent.

## COMPARISON OF RESULTS OBTAINED FROM THE VARIOUS TREATMENTS

### A. Palliative

The primary object of these observations was, as we have already stated, to determine whether a certain total weekly amount of quinine is better given by the *continuous* or by the *interrupted* method; e.g. is a total weekly dose of grains 30 more efficacious when administered as grains 5 on each of six consecutive days weekly or as grains 15 on each of two consecutive days weekly? It will be seen from Table IX that when grains 30 were administered

TABLE IX.

Comparison of palliative results obtained from the different treatments.

| | A | B | C | D |
|---|---|---|---|---|
| Weekly dose of quinine sulphate in grains | 5 × 6 | 15 × 2 | 15 × 6 | 45 × 2 |
| Percentage of parasitic febrile relapse cases per cases treated (average per week) ... ... | 15·1* | 7·5 | 4·1 | 1·8 |
| Percentage of non-parasitic febrile relapse cases per cases treated (average per week) ... ... | 10·9* | 9·4 | 9·7 | 8·5 |
| Percentage of all febrile (parasitic and non-parasitic) cases per cases treated (average per week) ... ... ... ... ... ... | 26·0* | 16·9 | 13·8 | 10·3 |

* As in 8 of the 47 cases in this series treatment had to be abandoned before completion of 8 weeks, this is only a minimum figure (*vide* text).

† Three cases (Nos. 1106, 1108 and 1109) were not observed after treatment.

as grains 5 on each of six days weekly, the average weekly number, over a period of eight weeks, of cases which had parasitic febrile relapses was 15·1 per cent. of cases treated, whereas when administered as grains 15 on each of two consecutive days weekly the percentage was only 7·5. Moreover, in eight of the forty-seven cases comprising the series in which the *continuous* treatment (i.e. grains 5 daily) was given, symptoms were not controlled and the method had to be abandoned; consequently 15·1 per cent. is only a minimum figure. In the grains 90 series the average weekly number, over a period of eight weeks, of cases which had parasitic febrile relapses was 4·1 per cent. when the *continuous* method was adopted and 1·8 per cent. with the *interrupted* method.

As we have previously pointed out, the efficacy of the various treatments regarded as palliatives must be judged from the percentage of cases having parasitic febrile relapses, as we know nothing of the real nature of the non-parasitic febrile attacks (*vide* Charts 949, 951, 1038 and 1087), which may or may not be malarial in nature. From this we conclude that, given a total weekly dose of quinine, it is better to divide it into two equal parts and administer one on each of two consecutive days weekly, than to divide it into six equal parts and administer one on each of six consecutive days.

If instead of parasitic febrile relapses we consider all febrile paroxysms (both parasitic and non-parasitic), we see that for the Grains 30 series the figure (26·0 per cent.) for the *continuous* method is higher than that (16·9 per cent.) for the *interrupted* method; for the Grains 90 series the figures are respectively 13·8 and 10·3 per cent. It is interesting to note in Table IX that the figure for the non-parasitic febrile attacks is practically constant for all four treatments, viz., about 10 per cent. If these non-parasitic febrile attacks were malarial, it might be expected that in the four treatments their relative frequency would be proportional to that of the parasitic febrile relapses; this, however, is not the case, e.g. the percentage of parasitic febrile relapses in Treatment A is eight times as great as in Treatment D, whereas that of the non-parasitic febrile attacks is only 1·3 times as great.

### B. Curative

In comparing the curative value of the various treatments we think it necessary, as considerable obscurity seems still to exist on the matter, to point out again that an observation period of definite duration after cessation of treatment is essential. In this, as in all our previous work, we have aimed at a post-treatment observation period of sixty days—a purely arbitrary limit—in those cases which did not relapse before the expiration of this period. In Series A, one case, which did not relapse, left hospital before the completion of the sixty days' observation period; in Series B, three cases; in Series C, one case; and in Series D, three cases. Consequently, in estimating the percentage of relapses which occurred within the sixty days' observation period two figures must be given: (1) the number of relapses actually observed: this represents the minimum number of relapses; (2) the number of relapses actually observed, plus the number of cases not relapsing but lost sight of before expiration of the sixty days' observation period: this represents the possible maximum number of relapses.

The curative results of the four treatments are given in Table X.

Table X.

Comparison of curative results obtained from the different treatments.

| Series | Dose in grains | Duration of treatment | Number of cases observed after treatment* | Number of cases which relapsed within 60 days* | Number of cases not relapsing but observed for less than 60 days | Percentages of cases which relapsed | |
|---|---|---|---|---|---|---|---|
| | | | | | | minimum | maximum |
| A | 5 × 6 | 2 months | 47 | 38 | 1 | 81 | 83 |
| B | 15 × 2 | ,, | 62 | 49 | 3 | 79 | 84 |
| C | 15 × 6 | ,, | 47 | 30 | 1 | 64 | 66 |
| D | 45 × 2 | ,, | 71 | 57 | 3 | 80 | 85 |

* Including those cases in which treatment was abandoned as the condition was uncontrolled.

It will be seen that from this point of view there is little to choose between the various treatments, as in all four series the majority of the cases relapsed within sixty days of cessation of treatment.

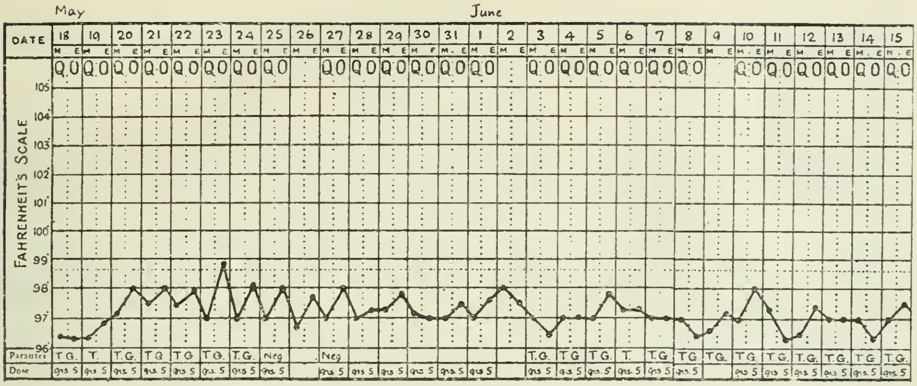
## CONCLUSION

Given a total weekly dose of quinine, it is better as a palliative to divide it into two equal parts and administer one on each of two consecutive days, than to divide it into six equal parts and administer one on each of six consecutive days: in other words, as a palliative, *interrupted* is preferable to *continuous* quinine treatment in simple tertian malaria.

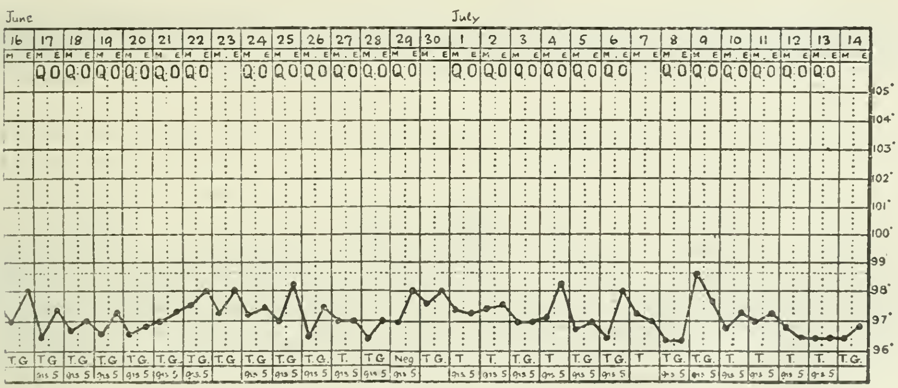
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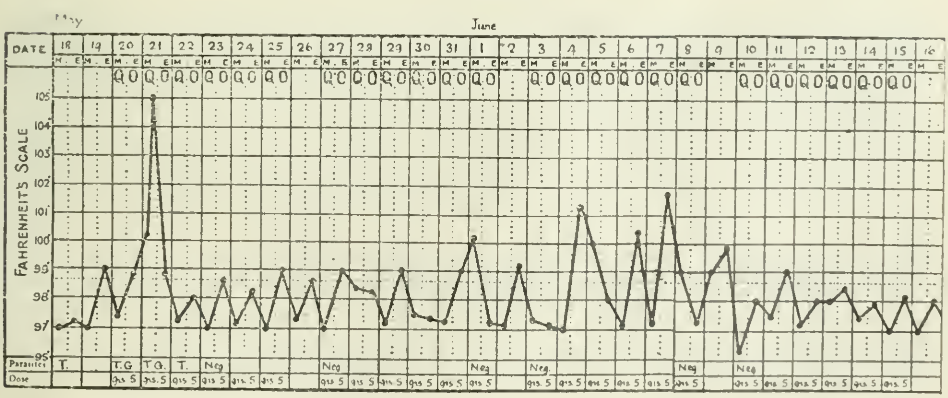
Case 946 (Part I)



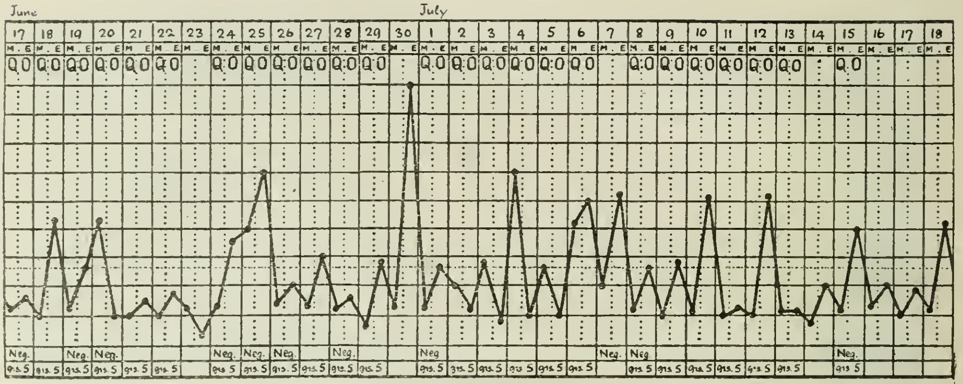

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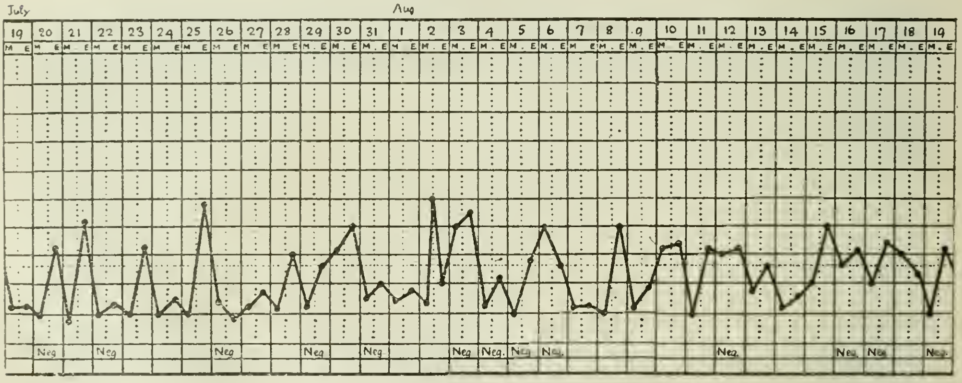

Case 949 (Part I)



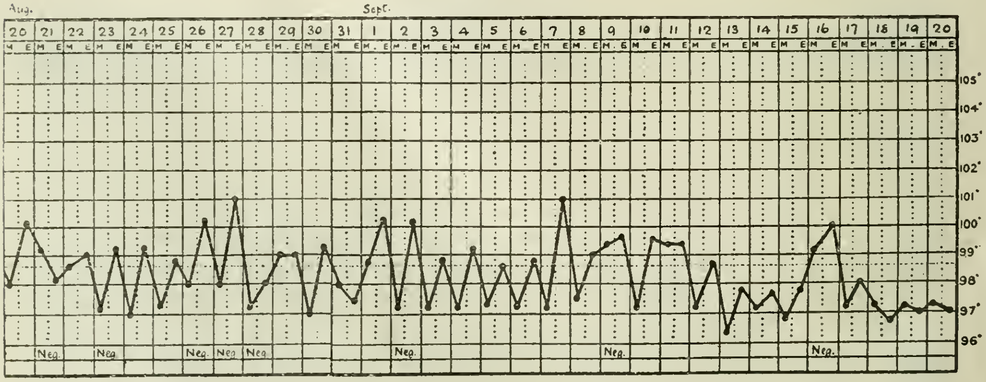
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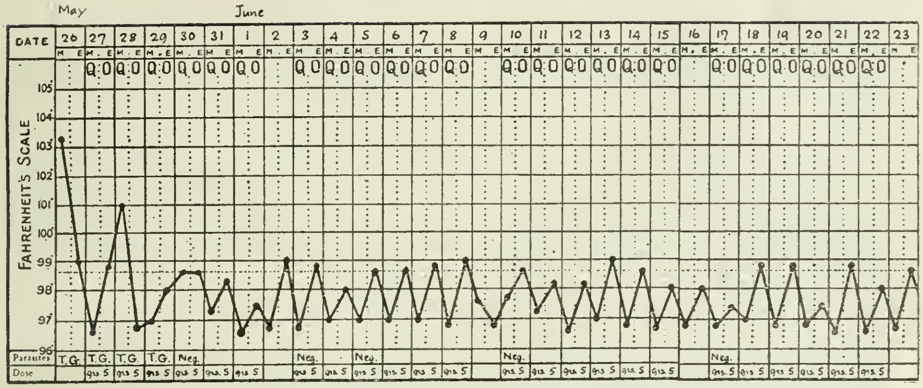
Case 949 (Part III)



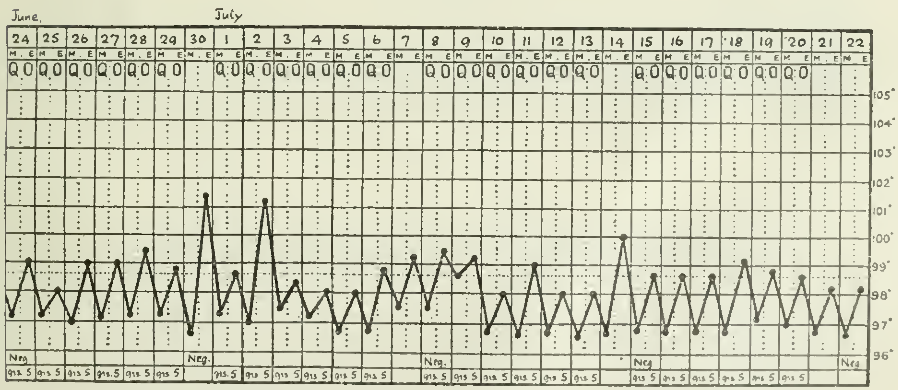
Case 949 (Part IV)



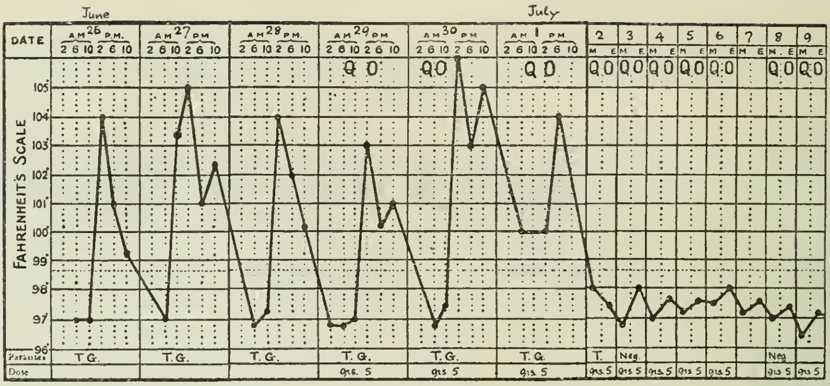
CASE 951 (Part I)



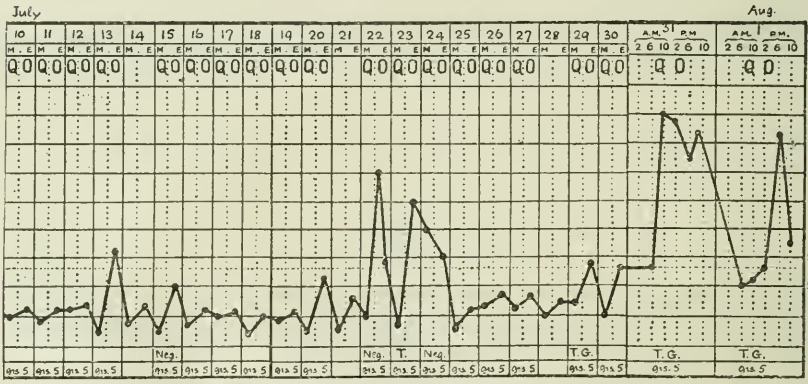
CASE 951 (Part II)



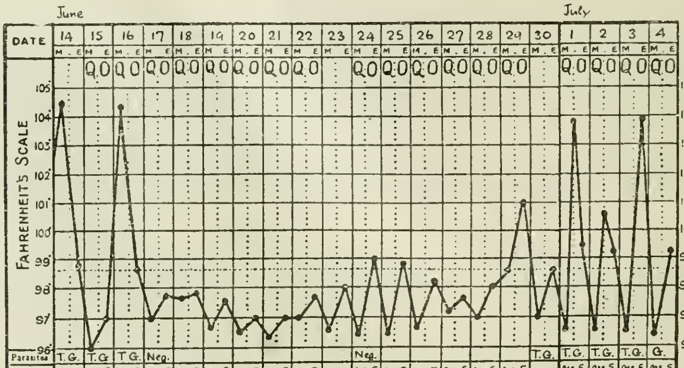
Case 963 (Part I)



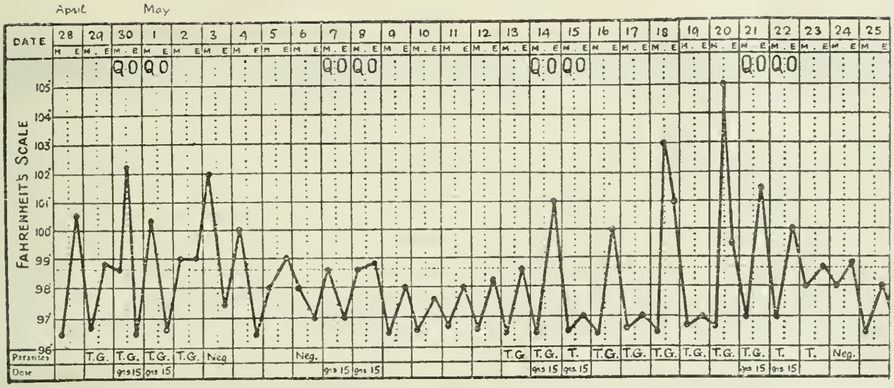
Case 963 (Part II)



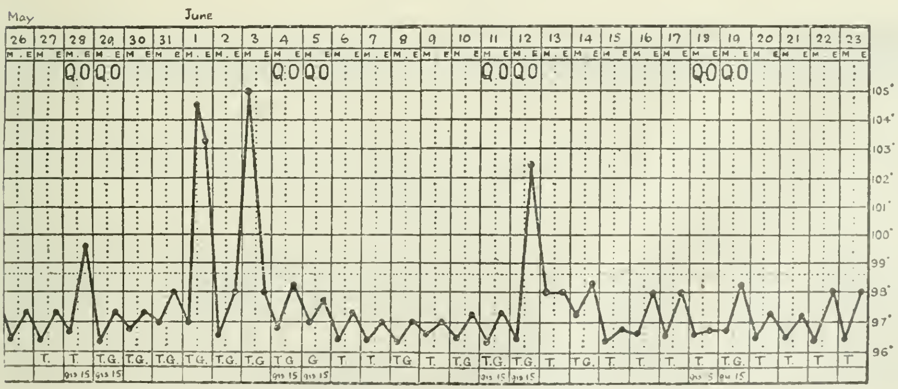
Case 965



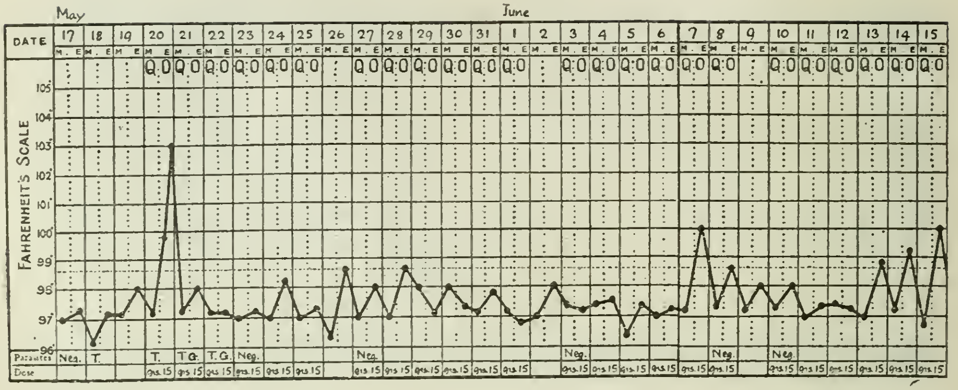
Case 980 (Part I)



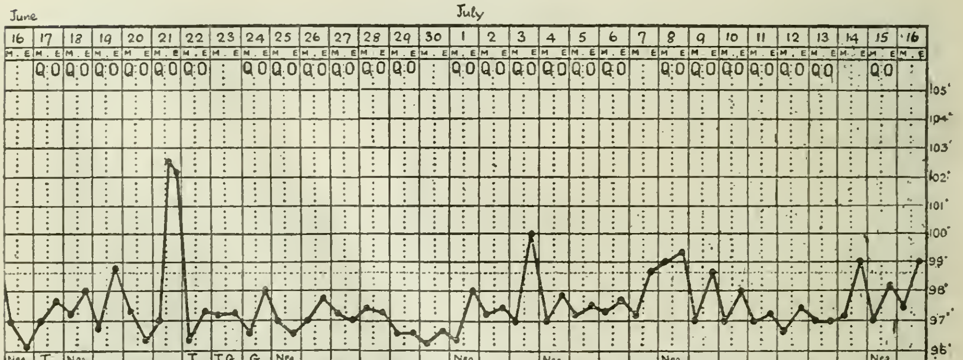
Case 980 (Part II)



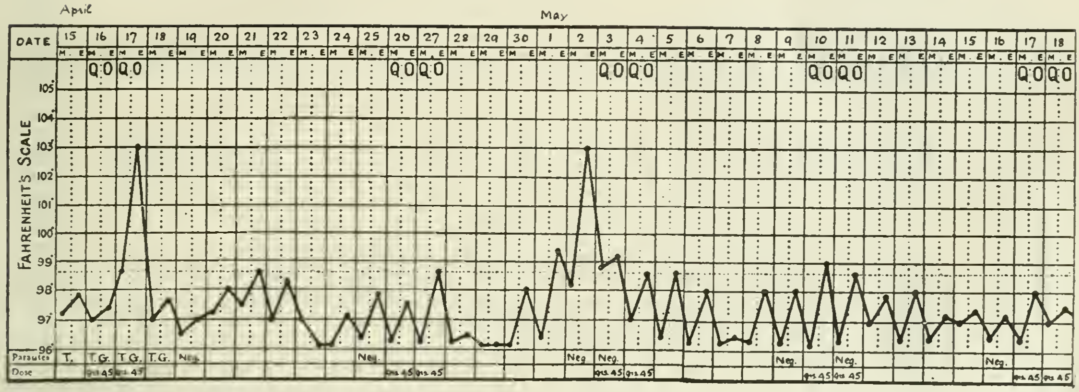
CASE 1038 (Part I)



CASE 1038 (Part II)



Case 1087 (Part I)



Case 1087 (Part II)

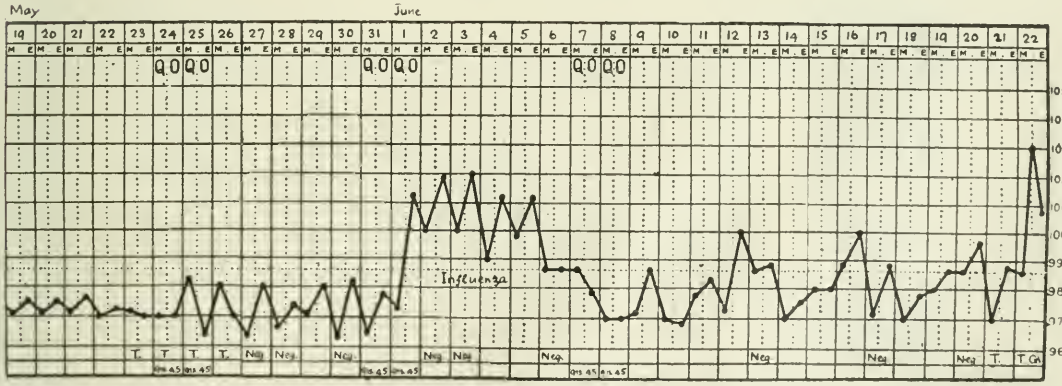


TABLE XI.

Results of oral administration of quinine sulphate in solution, grains 5, on each of six consecutive days weekly for 8 weeks.

† E.A. = East Africa. Eng. = England. It. = Italy. S. = Salonika.

| Number of case | †Place of infection | Interval (in months) between first admission to a hospital with malaria and present treatment | Interval (in months) between leaving infected area and present treatment | Interval (in months) between arrival in England and present treatment | Date of end of treatment | Temperature fell to normal in — days after first dose | Parasites disappeared from cutaneous blood in — days after first dose | Number of febrile paroxysms (parasitic and non-parasitic) and results of blood examinations during treatment — Week of Treatment: 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | Parasitic relapse occurred in — days after cessation of treatment | Febrile relapse (above 100° F.) occurred in — days after cessation of treatment | Observation period (in days) in cases which did not relapse | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 923 | S. | 11 | 7 | 4 | 12.7.18 | 1 | ... | **P**‡ | **4** | **1** | **1** | 0 | **3** | **2** | 0 | 1 | 1 | ... | |
| 924 | S. | 9 | 6 | 5 | 12.7.18 | 3 | ... | **P** | **P** | **2** | **1*** | **2** | **P** | **P** | 0 | 18–23 | 18 | ... | |
| 925 | S. | 22 | 6 | 5 | 12.7.18 | ... | ... | **3** | **1** | **1** | 0 | **P** | **P** | 0 | 0 | 1–10 | 10 | ... | |
| 926 | It. | 11 | 4 | 4 | 12.7.18 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10–17 | 19 | ... | |
| 927 | S. | 10 | 7 | 2 | 12.7.18 | Apyrexia | 1 | 0 | **1*** | 0 | 0 | 0 | **1*** | 0 | 0 | 1–18 | 15 | ... | |
| 928 | S. | 10 | 5 | 2 | 12.7.18 | 3 | ... | **P** | **P** | **2** | 0 | 0 | **1*** | **1*** | **2*** | 1–18 | 18 | ... | |
| 929 | S. | 31 | 7 | 2 | 14.7.18 | 2 | ... | **1** | **3** | **P** | **P** | **P** | **P** | **1*** | **P** | 2–8 | 13 | ... | |
| 930 | S. | 21 | 5 | 4 | 17.7.18 | Apyrexia | 1 | **1*** | **P** | **1** | 0 | 0 | **1*** | **1*** | 0 | ... | ... | 61 | 101° F. on 25th, 103·8° F. on 26th days. |
| 931 | S. | 25 | 6 | 6 | 17.7.18 | 2 | 3–5 | 0 | 0 | 0 | 0 | 0 | **P** | **P** | 0 | 1–6 | 6 | ... | |
| 932 | S. | 16 | 5 | 4 | 16.7.18 | Same day | 2–5 | 0 | 0 | **1*** | 0 | 0 | 0 | 0 | 0 | ... | ... | 21 | |
| 933 | S. | 10 | 5 | 5 | 17.7.18 | 1 | 2–5 | 0 | **P** | 0 | 0 | 0 | **3** | **P** | **P** | 1–5 | 21 | ... | |
| 934 | E.A. | 23 | 6 | 4 | 16.7.18 | 2 | 2–5 | 0 | **4** | **1** | **2** | **P** | **P** | **P** | 0 | 1–6 | 18 | ... | |
| 935 | S. | 21 | 5 | 3 | 17.7.18 | Same day | 1–4 | **P** | **P** | **1** | 0 | **2** | **1*** | 0 | 0 | 1–4 | 4 | ... | |
| 936 | S. | 11 | 6 | 5 | 19.7.18 | 2 | 3 | 0 | **2*** | 0 | 0 | **P** | **2** | 0 | 0 | 1–4 | 6 | ... | |
| 937 | E.A. | 27 | 7 | 4 | 21.7.18 | 5 | 1–5 | 0 | **P** | 0 | **1** | **P** | **P** | 0 | 0 | 2–8 | 21 | ... | |

‡ As in the subsequent weeks *only one* routine blood examination was made (at the end of each week), the letter '**P**' in the first week of treatment indicates that parasites were present on the 7th day of treatment, and does not refer to parasitic records earlier in the week. Three days are allowed for the initial fever to subside. A numeral, e.g., '**2**', in the first week therefore indicates that there were two subsequent rises of temperature, both parasitic; these are recorded because in all weeks every rise of temperature was examined microscopically and the results recorded, in addition to those of the weekly examination.

TABLE XI—*continued.*

| Number of case | †Place of infection | Interval (in months) between first admission to a hospital with malaria and present treatment | Interval (in months) between leaving infected area and present treatment | Interval (in months) between arrival in England and present treatment | Date of end of treatment | Temperature fell to normal in — days after first dose | Parasites disappeared from cutaneous blood in — days after first dose | Number of febrile paroxysms (parasitic and non-parasitic) and results of blood examinations during treatment — Week of Treatment: 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | Parasitic relapse occurred in — days after cessation of treatment | Febrile relapse (above 100° F.) occurred in — days after cessation of treatment | Observation period in days in cases which did not relapse | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 938 | S. | 11 | 6 | 2 | 23.7.18 | 4 | 5 | **1** | **1** | o | **2*** | o | o | **P** | o | 28 | 26 | ... | |
| 939 | E.A. | 6 | 6 | 4 | 22.7.18 | 1 | 4–5 | o | o | o | **P** | o | o | o | **P** | 1–3 | 3 | ... | |
| 940 | S. | 11 | 5 | 3 | 18.7.18 | 3 | 4 | o | o | **P** | o | o | o | o | **1*** | 18 | 19 | ... | 103° F. on 4th day. |
| 941 | S. | 11 | 4 | 3 | 23.7.18 | Same day | 1 | o | **1** | **1** | **2** | **1*** | o | o | o | 1–2 | 1 | ... | |
| 942 | S. | 38 | 7 | 7 | 3.8.18 | 1 | 3 | o | **P** | **1** | o | o | **1** | **1** | o | 1–8 | 8 | ... | |
| 943 | S. | 10 | 4 | 4 | 28.7.18 | 1 | ... | **P** | **1** | **1** | **P** | o | **2** | o | o | 1 | 6 | ... | |
| 944 | S. | 10 | 8 | 3 | 5.8.18 | 2 | 2 | o | o | o | o | o | o | o | o | ... | ... | 79 | 103° F. on 16th day; 100° F. on 24th and 25th days; 105° F. on 48th day. |
| 945 | S. | 18 | 7 | 6 | 6.8.18 | 1 | 4 | **P** | **3** | **3** | **2** | **2** | **3** | **4** | **3*** | 1–10 | 10 | ... | |
| 946 | E.A. | 9 | 8 | 4 | 13.7.18 | Apyrexia | ... | **P** | o | **P** | **P** | **P** | **P** | **P** | **P** | 1 | ... | ... | Parasites persist without fever for 60 days after cessation of treatment. *Vide* chart. |
| 947 | S. | 11 | 7 | 2 | 21.7.18 | Apyrexia | 1 | o | o | o | o | o | o | o | o | ... | ... | 74 | |
| 948 | S. | 10 | 5 | 5 | 16.7.18 | 2 | 3 | o | o | o | o | o | **1*** | **1*** | **1*** | ... | ... | 92 | 100° F. on 29th and 70th days. |
| 949 | S. | 11 | 8 | 6 | 16.7.18 | 2 | 3 | o | **1*** | **4*** | o | **2*** | **2*** | **3*** | **3*** | ... | ... | 83 | Irregular temperature after cessation of treatment. *Vide* chart. |
| 950 | S. | | | | 17.7.18 | 1 | 2 | o | o | o | o | o | o | **2*** | o | 6–10 | 9 | ... | |
| 951 | Eng. | 2 | ... | ... | 20.7.18 | 2 | 3 | o | o | o | o | **1*** | **1*** | **1*** | o | 8–14 | 17 | ... | 100·8° F. on 7th day. *Vide* chart. |
| 952 | Eng. | 3 | 1 | ... | 21.7.18 | 2 | 4 | o | o | o | o | o | **2*** | o | o | 16–21 | 20 | ... | 101° F. on 6th, 100° F. on 14th days. |

TABLE XI—*continued.*

| Number of case | †Place of infection | Interval (in months) between first admission to a hospital with malaria and present treatment | Interval (in months) between leaving infected area and present treatment | Interval (in months) between arrival in England and present treatment | Date of end of treatment | Temperature fell to normal in — days after first dose | Parasites disappeared from cutaneous blood in — days after first dose | Number of febrile paroxysms (parasitic and non-parasitic) and results of blood examinations during treatment — Week of Treatment: 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | Parasitic relapse occurred in — days after cessation of treatment | Febrile relapse (above 100° F.) occurred in — days after cessation of treatment | Observation period (in days) in cases which did not relapse | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 953 | S. | 11 | 4 | 2 | 20.7.18 | 2 | 2 | o | o | o | o | o | o | o | o | 24-25 | 24 | ... | |
| 954 | S. | 14 | 6 | 6 | 23.7.18 | 1 | 3 | o | o | o | o | o | o | o | o | 10-16 | 15 | ... | |
| 955 | S. | 19 | 5 | 4 | 23.7.18 | 2 | 3 | o | o | o | o | o | **3*** | o | o | 7-13 | 13 | ... | |
| 956 | S. | 7 | 9 | 8 | 22.7.18 | 4 | 4 | o | o | o | o | o | **P** | o | o | ... | ... | 116 | |
| 957 | S. | 10 | 9 | 2 | 29.7.18 | 1 | 2 | o | o | o | o | **3*** | o | o | o | ... | ... | 77 | |
| 958 | S. | 28 | 3 | 3 | 10.8.18 | 1 | 2 | o | o | **2*** | o | o | o | o | o | ... | ... | 66 | |
| 959 | S. | 15 | 5 | 3 | 10.8.18 | 1 | ... | **P** | **3** | **P** | **P** | o | o | **1*** | **P** | 1 | 7 | ... | |
| 960 | S. | 13 | 3 | 2 | 22.8.18 | 1 | ... | **P** | o | o | o | o | o | o | o | 12-18 | 15 | ... | |
| 961 | S. | 9 | 4 | 3 | 25.8.18 | Same day | 2 | o | o | o | o | o | o | o | o | 53-58 | ... | ... | Quinine orally, grs. 45, on 61st day. |
| 962 | S. | 26 | 5 | 4 | 13.7.18 | 3 | 1 | o | **P** | **1** | o | **P** | **P** | **P** | ... | ... | ... | ... | Quinine intramuscularly grs. 15 × 2, in 7th week. |
| 963 | S. | 6 | 3 | 2 | 25.8.18 | 3 | 4 | o | o | o | **3** | **2** | ... | ... | ... | ... | ... | ... | Quinine intramuscularly grs. 15 × 2 in 5th week. *Vide* chart. |
| 964 | S. | 10 | 5 | 4 | 25.6.18 | 2 | ... | **P** | **3** | **1** | o | **5** | ... | ... | ... | ... | ... | ... | Condition uncontrolled. |
| 965 | S. | 23 | 8 | 3 | 10.8.18 | 2 | 2 | o | o | **4** | ... | ... | ... | ... | ... | ... | ... | ... | Quinine intramuscularly grs. 15 × 2 in 3rd week. *Vide* chart. |
| 966 | S. | 22 | 6 | 1 | 4.6.18 | 4 | 1-5 | o | **2*** | **3** | ... | ... | ... | ... | ... | ... | ... | ... | Condition uncontrolled; treatment changed. |
| 967 | S. | 9 | 3 | 3 | 27.5.18 | ... | ... | **4** | **3** | ... | ... | ... | ... | ... | ... | ... | ... | ... | Condition uncontrolled; treatment changed. |
| 968 | ... | ... | ... | ... | 6.6.18 | 3 | ... | **P** | **3** | ... | ... | ... | ... | ... | ... | ... | ... | ... | Condition uncontrolled; treatment changed. |
| 969 | S. | 12 | 9 | 1 | 3.6.18 | ... | ... | **3** | **2** | ... | ... | ... | ... | ... | ... | ... | ... | ... | Condition uncontrolled; treatment changed. |

TABLE XII.

Results of oral administration of quinine sulphate in solution, grains 15, on each of two consecutive days weekly for 8 weeks.

† E.A. = East Africa. F. = France. M. = Mesopotamia. S. = Salonika.

| Number of case | †Place of infection | Interval (in months) between first admission to a hospital with malaria and present treatment | Interval (in months) between leaving infected area and present treatment | Interval (in months) between arrival in England and present treatment | Date of end of treatment | Temperature fell to normal in — days after first dose | Parasites disappeared from cutaneous blood in — days after first dose | Number of febrile paroxysms (parasitic and non-parasitic) and results of blood examinations during treatment — Week of Treatment: 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | Parasitic relapse occurred in — days after cessation of treatment | Febrile relapse (above 100° F.) occurred in — days after cessation of treatment | Observation period (in days) in cases which did not relapse | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 970 | S. | 10 | 4 | 3 | 19.6.18 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | 117 | 101·8° F. on 12th, 102·4° F. on 13th, 100·8° F. on 18th days (influenza). |
| 971 | S. | 10 | 5 | 4 | 19.6.18 | Apyrexia | 2 | 0 | 0 | 0 | **1*** | 0 | 0 | **P** | **6** | 1 | 1 | ... | |
| 972 | E.A. | 9 | 5 | 3 | 19.6.18 | 1 | 3 | 0 | 0 | **1*** | 0 | 0 | 0 | 0 | 0 | 13–18 | 15 | ... | |
| 973 | S. | 10 | 5 | 5 | 19.6.18 | Same day | 1 | 0 | **2*** | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | ... | Not observed after treatment. |
| 974 | S. | 11 | 4 | 3 | 19.6.18 | Same day | 1 | **1*** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 10 | ... | |
| 975 | S. | 6 | 4 | 3 | 19.6.18 | Apyrexia | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **2** | 1–4 | 4 | ... | |
| 976 | S. | 14 | 5 | 4 | 19.6.18 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34–38 | 37 | ... | |
| 977 | S. | 10 | ... | 5 | 19.6.18 | 1 | 2 | **1*** | 0 | 0 | 0 | 0 | 0 | 0 | **1*** | 27–31 | 30 | ... | 100° F. on 5th and 8th days; 102° F. on 11th, 101° F. on 19th, 100°F. on 26th days. |
| 978 | S. | 21 | 4 | 3 | 19.6.18 | 1 | 2 | **1*** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 16 | ... | |
| 979 | E.A. | 11 | 5 | 3 | 19.6.18 | Apyrexia | 3 | 0 | **1*** | **1*** | 0 | 0 | 0 | 0 | **P** | 6–12 | 11 | ... | |
| 980 | E.A. | 22 | 6 | 3 | 19.6.18 | 5 | 3 | 0 | **P** | **4** | **2** | **2** | **P** | **1** | **P** | 1 | 1 | ... | *Vide* chart. |
| 981 | E.A. | 11 | 5 | 3 | 19.6.18 | Apyrexia | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1–5 | ... | ... | No febrile relapse in 106 days. |
| 982 | E.A. | 8 | 6 | 3 | 19.6.18 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1–5 | 9 | ... | |
| 983 | S. | 12 | 4 | 2 | 19.6.18 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13–16 | 15 | ... | 102° F. on 8th day. |
| 984 | E.A. | 8 | 4 | 3 | 19.6.18 | 3 | 3 | 0 | **1** | **1** | 0 | **1** | 0 | 0 | **2** | 1–3 | 3 | ... | |

TABLE XII *continued*

| Number of case | †Place of infection | Interval (in months) between first admission to a hospital with malaria and present treatment | Interval (in months) between leaving infected area and present treatment | Interval (in months) between arrival in England and present treatment | Date of end of treatment | Temperature fell to normal in — days after first dose | Parasites disappeared from cutaneous blood in — days after first dose | Number of febrile paroxysms (parasitic and non-parasitic) and results of blood examinations during treatment — Week of Treatment: 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | Parasitic relapse occurred in — days after cessation of treatment | Febrile relapse (above 100° F.) occurred in — days after cessation of treatment | Observation period (in days) in cases which did not relapse | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 985 | S. | 26 | 5 | 5 | 19.6.18 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | **P** | 6–11 | 10 | ... | |
| 986 | S. | 12 | 4 | 4 | 19.6.18 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 55–56 | 56 | ... | |
| 987 | E.A. | 9 | 6 | 3 | 26.6.18 | 3 | 2 | 0 | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 20–23 | 22 | ... | |
| 988 | S. | 12 | 4 | 3 | 19.6.18 | Apyrexia | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8–12 | 11 | ... | |
| 989 | S. | 10 | 3 | 3 | 19.6.18 | 1 | 3 | **1*** | **1*** | 0 | **1*** | **1*** | 0 | 0 | 0 | ... | ... | 110 | |
| 990 | S. | 9 | 4 | 3 | 19.6.18 | 1 | 1 | 0 | **1*** | 0 | 0 | 0 | 0 | 0 | **2** | 1 | 1 | ... | |
| 991 | S. | 24 | 4 | 3 | 19.6.18 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | 78 | |
| 992 | S. | 11 | 3 | 3 | 19.6.18 | 1 | 2 | 0 | **1*** | 0 | 0 | 0 | 0 | 0 | 0 | 13–14 | 13 | ... | |
| 993 | E.A. | 18 | 5 | 3 | 19.6.18 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6–12 | 42 | ... | |
| 994 | E.A. | 7 | 6 | 3 | 19.6.18 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | **P** | **P** | **P** | 1 | 12 | ... | |
| 995 | F. | 4 | 2 | 2 | 26.6.18 | Same day | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13–16 | 13 | ... | |
| 996 | S. | 12 | 5 | 4 | 26.6.18 | Same day | 1 | 0 | 0 | 0 | 0 | 0 | 0 | **2** | 0 | 1 | 18 | ... | |
| 997 | M. | 13 | 11 | 7 | 26.6.18 | Apyrexia | 1 | 0 | 0 | **2** | 0 | 0 | 0 | 0 | 0 | ... | ... | 62 | |
| 998 | E.A. | 23 | 8 | 3 | 26.6.18 | Apyrexia | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13–19 | ... | ... | No febrile relapse in 98 days. |
| 999 | E.A. | 12 | 6 | 3 | 26.6.18 | Apyrexia | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34–40 | ... | ... | No febrile relapse in 108 days. |
| 1000 | E.A. | 7 | 6 | 4 | 3.7.18 | Apyrexia | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | 64 | |
| 1001 | S. | 10 | 5 | 4 | 3.7.18 | 1 | 4 | 0 | 0 | 0 | 0 | **P** | **P** | 0 | 0 | 13–19 | ... | ... | No febrile relapse in 76 days. |
| 1002 | S. | 23 | 7 | 6 | 3.7.18 | 1 | 2 | 0 | 0 | **1*** | 0 | 0 | 0 | 0 | 0 | ... | ... | 42 | |

TABLE XII—*continued*.

| Number of case | †Place of infection | Interval (in months) between first admission to a hospital with malaria and present treatment | Interval (in months) between leaving infected area and present treatment | Interval (in months) between arrival in England and present treatment | Date of end of treatment | Temperature fell to normal in — days after first dose | Parasites disappeared from cutaneous blood in — days after first dose | Number of febrile paroxysms (parasitic and non-parasitic) and results of blood examinations during treatment — Week of Treatment: 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | Parasitic relapse occurred in — days after cessation of treatment | Febrile relapse (above 100° F.) occurred in — days after cessation of treatment | Observation period (in days) in cases which did not relapse | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1003 | S. | 11 | 4 | 3 | 13.6.18 | 1 | 1–3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | ... | ... | No febrile relapse in 63 days. |
| 1004 | S. | 23 | 5 | 4 | 13.6.18 | 2 | 1–3 | 0 | **1*** | 0 | **2** | 0 | 0 | **1** | **1** | 8 | ... | ... | No febrile relapse in 84 days. |
| 1005 | S. | 21 | 5 | 4 | 27.6.18 | Same day | No record | 0 | **1** | **2** | 0 | 0 | **1** | **1** | 0 | 11 | 7 | ... | |
| 1006 | S. | 23 | 5 | 4 | 27.6.18 | 1 | 1–7 | 0 | 0 | 0 | 0 | **1*** | 0 | **1*** | **3*** | ... | ... | 68 | Irregular temperature after cessation of treatment. Almost daily non-parasitic rises. |
| 1007 | S. | 13 | 5 | 4 | 27.6.18 | 1 | 2–7 | 0 | 0 | **2** | **P** | 0 | 0 | **P** | **1*** | 6–11 | 28 | ... | |
| 1008 | S. | 11 | ... | ... | 27.6.18 | 1 | 2–7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | ... | ... | Pneumonia on 3rd day after cessation of treatment. |
| 1009 | E.A. | 24 | 4 | 3 | 27.6.18 | 1 | 1–7 | 0 | 0 | 0 | **P** | 0 | 0 | **1*** | 0 | 10 | 16 | ... | |
| 1010 | S. | 7 | 4 | 3 | 27.6.18 | 1 | 1–7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 12 | ... | |
| 1011 | S. | 12 | ... | ... | 2.7.18 | 1 | 1–6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | ... | Not observed after treatment. |
| 1012 | E.A. | 9 | 4 | 3 | 27.6.18 | 1 | 1 | 0 | 0 | 0 | **1*** | 0 | **1** | 0 | 0 | 1 | 1 | ... | |
| 1013 | S. | 21 | 6 | 5 | 27.6.18 | 2 | 4–6 | 0 | **3** | **3** | **P** | **P** | 0 | 0 | 0 | 14–20 | 29 | ... | |
| 1014 | S. | 21 | 5 | 5 | 27.6.18 | 1 | 3–6 | 0 | 0 | 0 | 0 | **P** | **1** | 0 | 0 | 9 | 24 | ... | |
| 1015 | S. | 10 | 10 | 9 | 27.6.18 | 2 | 1–4 | 0 | 0 | **2** | **1** | 0 | 0 | 0 | 0 | 35 | 35 | ... | 100° F. on 25th and 29th days. |
| 1016 | S. | 12 | 4 | 3 | 27.6.18 | 1 | 1–4 | 0 | 0 | 0 | 0 | **1*** | 0 | **1*** | 0 | 41–42 | 42 | ... | |
| 1017 | S. | 23 | 4 | 3 | 27.6.18 | 1 | 1–4 | 0 | 0 | 0 | **1*** | 0 | 0 | **1*** | 0 | 12 | 9 | ... | |
| 1018 | S. | 26 | 4 | 3 | 27.6.18 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13–18 | 18 | ... | |

TABLE XII—*continued.*

| Number of case | †Place of infection | Interval (in months) between first admission to a hospital with malaria and present treatment | Interval (in months) between leaving infected area and present treatment | Interval (in months) between arrival in England and present treatment | Date of end of treatment | Temperature fell to normal in — days after first dose | Parasites disappeared from cutaneous blood in — days after first dose | Number of febrile paroxysms (parasitic and non-parasitic) and results of blood examinations during treatment — Week of Treatment: 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | Parasitic relapse occurred in — days after cessation of treatment | Febrile relapse (above 100° F.) occurred in — days after cessation of treatment | Observation period (in days) in cases which did not relapse | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1019 | S. | 7 | 4 | 3 | 27.6.18 | 1 | 2–4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13–19 | 21 | ... | |
| 1020 | S. | 13 | 3 | 2 | 27.6.18 | 1 | 1–3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 41–47 | 55 | | |
| 1021 | S. | 11 | 4 | 3 | 27.6.18 | 1 | 2–3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1* | 13–19 | 26 | ... | |
| 1022 | S. | 10 | 4 | 3 | 27.6.18 | 1 | 2–3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1* | ... | ... | 68 | 102° F. on 53rd, 104° F. on 54th and 55th days: probably rheumatic. |
| 1023 | S. | 12 | 4 | 4 | 27.6.18 | 1 | 1–2 | 0 | 0 | 0 | 0 | 0 | 0 | 1* | 0 | ... | ... | 69 | |
| 1024 | M. | 26 | 25 | 24 | 4.7.18 | ... | 1 | 5* | 2* | 2* | 3* | 2* | 2* | 1* | 1* | ... | ... | 63 | |
| 1025 | S. | 22 | 6 | 5 | 4.7.18 | 1 | 1–7 | 0 | 0 | 3 | 0 | 0 | 0 | P | 0 | 12–18 | 18 | ... | |
| 1026 | S. | 23 | 5 | 4 | 4.7.18 | 1 | 1 | 0 | 0 | 0 | 0 | 1* | 1* | 1* | 0 | 13–14 | 14 | ... | |
| 1027 | S. | 22 | 4 | 4 | 4.7.18 | Same day | 1–7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | 50 | 100° F. on 8th and 10th days; 102° F. on 13th, 101° F. on 15th days. |
| 1028 | ... | ... | ... | ... | 4.7.18 | Same day | 1–7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13–19 | ... | ... | No febrile relapse in 69 days. |
| 1029 | S. | 21 | 6 | 6 | 4.7.18 | 2 | 3 | 1* | 0 | 2 | P | 1 | 0 | 3 | 1 | ... | ... | ... | Not observed after treatment. |
| 1030 | S. | 25 | 5 | 4 | 4.7.18 | 1 | 1–6 | 0 | 1* | 3* | 2* | 0 | 1 | 1* | 0 | 13–14 | 14 | ... | |
| 1031 | S. | 11 | 6 | 5 | 4.7.18 | 1 | 1–7 | 0 | 0 | 0 | 0 | 1 | 1 | 2* | 1* | 27–33 | 47 | ... | |
| 1032 | S. | 15 | 10 | 2 | 4.7.18 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | 62 | 103° F. on 26th day. |
| 1033 | S. | 13 | 4 | 4 | 11.7.18 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | 54 | |
| 1034 | S. | 10 | 4 | 4 | 11.7.18 | 1 | 1–7 | 0 | 0 | 3 | 0 | 1 | 1 | P | P | 6–9 | 9 | ... | |

TABLE XIII.

Results of oral administration of quinine sulphate in solution, grains 15, on each of six consecutive days, weekly for 8 weeks.

† E.A. = East Africa. S. = Salonika.

| Number of case | † Place of infection | Interval (in months) between first admission to a hospital with malaria and present treatment | Interval (in months) between leaving infected area and present treatment | Interval (in months) between arrival in England and present treatment | Date of end of treatment | Temperature fell to normal in — days after first dose | Parasites disappeared from cutaneous blood in — days after first dose | Number of febrile paroxysms (parasitic and non-parasitic) and results of blood examinations during treatment — Week of Treatment: 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | Parasitic relapse occurred in — days after cessation of treatment | Febrile relapse (above 100° F.) occurred in — days after cessation of treatment | Observation period (in days) in cases which did not relapse | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1035 | S. | 9 | 4 | 3 | 13.7.18 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | **4** | **P** | 11–15 | 16 | ... | Quinine intramuscularly 15 × 2 in 8th week. |
| 1036 | S. | 16 | 4 | 3 | 13.7.18 | Apyrexia | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **P** | 40–44 | 45 | ... | |
| 1037 | E.A. | 16 | 7 | 4 | 13.7.18 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1*** | 9–13 | 11 | ... | |
| 1038 | S. | 16 | 5 | 4 | 15.7.18 | 1 | 3 | 0 | 0 | **1*** | **1*** | **1** | **P** | **1*** | 0 | 8–12 | 11 | ... | *Vide* chart. |
| 1039 | ... | ... | ... | ... | 15.7.18 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | 85 | |
| 1040 | S. | 10 | 5 | 5 | 17.7.18 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | **1*** | 0 | ... | ... | ... | Not observed after treatment. |
| 1041 | S. | 10 | 7 | 2 | 18.7.18 | Apyrexia | 3 | 0 | 0 | 0 | **1*** | 0 | 0 | 0 | 0 | 6–12 | 14 | ... | |
| 1042 | S. | 25 | 6 | 5 | 19.7.18 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | 95 | |
| 1043 | S. | 5 | 5 | 2 | 22.7.18 | 3 | 2 | **1*** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | 77 | |
| 1044 | S. | 12 | 3 | 2 | 23.7.18 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7–13 | 12 | ... | |
| 1045 | S. | 22 | 5 | 4 | 23.7.18 | Apyrexia | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7–13 | 14 | ... | |
| 1046 | S. | 20 | 6 | 5 | 10.8.18 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | ... | |
| 1047 | S. | 10 | 3 | 2 | 9.8.18 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | 77 | 100° F. on 6th, 13th, 26th, 37th, 38th, and 66th days. |
| 1048 | S. | 12 | 4 | 2 | 14.8.18 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | 70 | |
| 1049 | S. | 12 | 2 | 1 | 15.8.18 | 1 | 3 | 0 | 0 | **2*** | 0 | 0 | 0 | 0 | 0 | ... | ... | 86 | |
| 1050 | S. | 19 | 5 | 4 | 12.7.18 | 1 | 1–2 | 0 | 0 | 0 | 0 | 0 | **2*** | **1*** | 0 | 39–45 | 45 | ... | 100° F. on 14th day. |

TABLE XIII—*continued*.

| Number of case | †Place of infection | Interval (in months) between first admission to a hospital with malaria and present treatment | Interval (in months) between leaving infected area and present treatment | Interval (in months) between arrival in England and present treatment | Date of end of treatment | Temperature fell to normal in — days after first dose | Parasites disappeared from cutaneous blood in — days after first dose | Number of febrile paroxysms (parasitic and non-parasitic) and results of blood examinations during treatment — Week of Treatment: 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | Parasitic relapse occurred in — days after cessation of treatment | Febrile relapse (above 100° F.) occurred in — days after cessation of treatment | Observation period (in days) in cases which did not relapse | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1051 | S. | 8 | 5 | 4 | 12.7.18 | 1 | 1–2 | 0 | 0 | 0 | **1***| 0 | 0 | 0 | 0 | ... | ... | 73 | 100° F. on 2nd, 14th, 23rd and 28th days. |
| 1052 | S. | 20 | 6 | 5 | 12.7.18 | 1 | 1–2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | 63 | |
| 1053 | S. | 31 | 6 | 5 | 12.7.18 | 2 | 3–7 | 0 | 0 | 0 | 0 | 0 | **2*** | 0 | 0 | 3–10 | 11 | ... | 100° F. on 1st day. |
| 1054 | S. | 13 | 9 | 6 | 12.7.18 | 2 | 2 | 0 | **1*** | 0 | **1*** | 0 | **1*** | **1*** | 0 | ... | ... | 63 | 102·4° F. on 15th, 17th and 25th days. |
| 1055 | E.A. | 21 | 7 | 4 | 12.7.18 | Apyrexia | 1–2 | 0 | 0 | 0 | 0 | **1*** | 0 | 0 | 0 | ... | ... | 80 | 101° F. on 69th day. |
| 1056 | S. | 22 | 5 | 4 | 12.7.18 | 2 | 2–7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | 63 | |
| 1057 | S. | 11 | 5 | 4 | 13.7.18 | 2 | 2–7 | 0 | 0 | 0 | 0 | **1*** | **2*** | 0 | **1*** | 17 | 17 | ... | 100° F. on 7th and 14th days. |
| 1058 | E.A. | 26 | 10 | 8 | 15.7.18 | 2 | 2–6 | 0 | **1*** | **1*** | 0 | 0 | 0 | **1*** | 0 | 8–10 | 10 | ... | |
| 1059 | S. | 13 | 6 | 5 | 15.7.18 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | **1*** | 0 | 0 | 8–11 | 11 | ... | |
| 1060 | E.A. | 11 | 9 | 4 | 15.7.18 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1–6 | 7 | ... | |
| 1061 | S. | 28 | 5 | 5 | 15.7.18 | 3 | 2–5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9–15 | 14 | ... | |
| 1062 | E.A. | 9 | 7 | 4 | 16.7.18 | 2 | 2–5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1–6 | 19 | ... | |
| 1063 | S. | 23 | 5 | 4 | 17.7.18 | Same day | 1–4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24–26 | 26 | ... | 100° F. on 6th day. |
| 1064 | S. | 11 | 7 | 4 | 15.7.18 | 1 | 1–4 | 0 | 0 | **5** | **1** | 0 | **3** | 0 | **1** | 1–3 | 4 | ... | |
| 1065 | S. | 13 | 7 | 4 | 17.7.18 | 2 | 2–4 | 0 | 0 | 0 | 0 | 0 | **1*** | 0 | 0 | 11–18 | 19 | ... | |
| 1066 | S. | 11 | 8 | 2 | 18.7.18 | Same day | 2 | **2*** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11–18 | 19 | ... | |
| 1067 | S. | 11 | 4 | 3 | 19.7.18 | 2 | 1–3 | 0 | 0 | 0 | **1*** | **1** | **1*** | **1*** | 0 | 10–12 | 12 | ... | |
| 1068 | S. | 13 | 5 | 3 | 19.7.18 | 1 | 1–3 | 0 | **1*** | 0 | 0 | 0 | 0 | 0 | 0 | 10–12 | 13 | ... | |

TABLE XIII—*continued.*

| Number of case | †Place of infection | Interval (in months) between first admission to a hospital with malaria and present treatment | Interval (in months) between leaving infected area and present treatment | Interval (in months) between arrival in England and present treatment | Date of end of treatment | Temperature fell to normal in — days after first dose | Parasites disappeared from cutaneous blood in — days after first dose | Number of febrile paroxysms (parasitic and non-parasitic) and results of blood examinations during treatment — Week of Treatment: 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | Parasitic relapse occurred in — days after cessation of treatment | Febrile relapse (above 100° F.) occurred in — days after cessation of treatment | Observation period (in days) in cases which did not relapse | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1069 | S. | 13 | 6 | 6 | 19.7.18 | 1 | 1–3 | 0 | 0 | 0 | 0 | 0 | 1* | 0 | 0 | ... | ... | 69 | 100° F. on 40th and 43rd days. |
| 1070 | S. | 21 | 5 | 4 | 19.7.18 | Apyrexia | 1–4 | 0 | 0 | 0 | 0 | 1* | 0 | 0 | 0 | 10–13 | 11 | ... | |
| 1071 | S. | 13 | 6 | 5 | 19.7.18 | Same day | 1–3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 44 | 42 | ... | |
| 1072 | S. | 14 | 5 | 4 | 18.7.18 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 1* | 0 | 0 | ... | ... | 158 | |
| 1073 | S. | 28 | 24 | 3 | 21.7.18 | 1 | 1–7 | 0 | 0 | 0 | 0 | 0 | 0 | 1* | 0 | 2–8 | 8 | ... | |
| 1074 | S. | 12 | 9 | 6 | 21.7.18 | 2 | 1–7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16–22 | ... | ... | No febrile relapse in 55 days. |
| 1075 | S. | 8 | 4 | 4 | 22.7.18 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7–14 | 13 | ... | |
| 1076 | S. | 12 | 3 | 3 | 22.7.18 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | ... | Not observed after treatment. |
| 1077 | S. | 11 | 5 | 4 | 25.7.18 | 1 | 1–4 | 0 | 0 | 0 | 0 | 0 | 1* | 0 | 0 | ... | ... | 70 | 101·4° F. on 22nd, 100·4° F. on 24th, 100·8° F. on 36th, 100° F. on 51st days. |
| 1078 | S. | 22 | 6 | 5 | 18.7.18 | 2 | 1–6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | 50 | 100° F. on 6th, 104° F. on 10th days. |
| 1079 | S. | 11 | 5 | 4 | 22.7.18 | 1 | 3 | 0 | 1* | 0 | 0 | 0 | 0 | 1* | 0 | 14–20 | 22 | ... | |
| 1080 | S. | 21 | 6 | 2 | 25.7.18 | 1 | 3 | 0 | 1* | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | 110 | 100° F. on 9th and 11th days; 100° F. on 44th and 50th, 101° F. on 70th days. |
| 1081 | S. | 12 | 5 | 5 | 25.7.18 | 1 | 3 | 1 | 3 | 1 | 2 | 0 | 0 | 1 | 2 | 12–17 | 17 | ... | 100·2° F. on 6th day. |
| 1082 | S. | 12 | 7 | 3 | 3.8.18 | 2 | 3–7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | 64 | |
| 1083 | S. | 9 | 2 | 1 | 13.8.18 | 1 | 2 | 0 | 0 | 2 | P | P | 1 | 2 | ... | ... | ... | ... | Quinine intramuscularly grs. 15 × 2 in 7th week. |

TABLE XIV.

Results of oral administration of quinine sulphate in solution, grains 45, on each of two consecutive days weekly for 8 weeks.

† E.A. = East Africa. S. = Salonika.

| Number of case | † Place of infection | Interval (in months) between first admission to a hospital with malaria and present treatment | Interval (in months) between leaving infected area and present treatment | Interval (in months) between arrival in England and present treatment | Date of end of treatment | Temperature fell to normal in — days after first dose | Parasites disappeared from cutaneous blood in — days after first dose | Number of febrile paroxysms (parasitic and non-parasitic) and results of blood examinations during treatment — Week of Treatment: 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | Parasitic relapse occurred in — days after cessation of treatment | Febrile relapse (above 100° F.) occurred in — days after cessation of treatment | Observation period (in days) in cases which did not relapse | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1084 | E.A. | 9 | 4 | 3 | 8.6.18 | 2 | 3 | 0 | 0 | **1*** | 0 | **1** | 0 | 0 | 0 | 6–12 | 18 | ... | |
| 1085 | E.A. | 7 | 5 | 3 | 8.6.18 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1–5 | 9 | ... | |
| 1086 | E.A. | 9 | 6 | 3 | 8.6.18 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13–17 | 17 | ... | |
| 1087 | E.A. | 12 | 6 | 4 | 8.6.18 | 2 | 3 | 0 | **1*** | 0 | 0 | **P** | **P** | **5*** | **1*** | 13 | 14 | ... | Febrile attacks in 7th and 8th weeks due to influenza and sciatica. 100° F. on 4th and 8th days after cessation of treatment. *Vide* chart. |
| 1088 | E.A. | 11 | 6 | 4 | 8.6.18 | Apyrexia | 3 | 0 | 0 | 0 | 0 | 0 | 0 | **1*** | 0 | 6–12 | ... | ... | Quinine orally on 19th day. |
| 1089 | S. | 12 | 4 | 3 | 8.6.18 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6–12 | 12 | ... | |
| 1090 | E.A. | 13 | 7 | 4 | 7.6.18 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | **1** | 16–17 | 15 | ... | |
| 1091 | E.A. | 10 | 6 | 3 | 8.6.18 | Same day | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | 60 | Relapsed parasitically in 62-68 days and febrilely in 68 days. |
| 1092 | S. | 23 | 4 | 3 | 8.6.18 | Apyrexia | 1 | 0 | 0 | 0 | **1*** | 0 | 0 | 0 | 0 | 6–12 | 13 | ... | |
| 1093 | S. | 10 | 4 | 3 | 8.6.18 | 1 | 2 | 0 | **1*** | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | 77 | 102·4° F. on 26th day. |
| 1094 | S. | 8 | 4 | 3 | 8.6.18 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13–18 | 18 | ... | |
| 1095 | E.A. | 11 | 4 | 3 | 8.6.18 | Apyrexia | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20–26 | 26 | ... | |
| 1096 | E.A. | 17 | 4 | 3 | 8.6.18 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13–19 | 17 | ... | |
| 1097 | E.A. | 25 | 4 | 3 | 8.6.18 | Apyrexia | 1 | 0 | 0 | **2*** | 0 | 0 | 0 | 0 | 0 | 13–19 | 23 | ... | |

TABLE XIV—*continued.*

| Number of case | †Place of infection | Interval (in months) between first admission to a hospital with malaria and present treatment | Interval (in months) between leaving infected area and present treatment | Interval (in months) between arrival in England and present treatment | Date of end of treatment | Temperature fell to normal in — days after first dose | Parasites disappeared from cutaneous blood in — days after first dose | Number of febrile paroxysms (parasitic and non-parasitic) and results of blood examinations during treatment — Week of Treatment: 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | Parasitic relapse occurred in — days after cessation of treatment | Febrile relapse (above 100° F.) occurred in — days after cessation of treatment | Observation period (in days) in cases which did not relapse | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1098 | E.A. | 7 | 5 | 3 | 8.6.18 | Apyrexia | 2 | 0 | 0 | **2** | 0 | 0 | 0 | 0 | 0 | 12–18 | 18 | ... | |
| 1099 | S. | 10 | 5 | 4 | 15.6.18 | Same day | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | 69 | 101° F. on 9th. 101·5° F. on 10th days. |
| 1100 | S. | 11 | 5 | 5 | 15.6.18 | Apyrexia | 2 | 0 | 0 | 0 | **1*** | 0 | 0 | 0 | 0 | 5–12 | 13 | ... | |
| 1101 | S. | 25 | 4 | 2 | 15.6.18 | Same day | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | ... | ... | Discharged on 16th day. |
| 1102 | E.A. | 10 | 5 | 5 | 15.6.18 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8–12 | 18 | ... | |
| 1103 | S. | 23 | 6 | 5 | 15.6.18 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **2*** | ... | ... | 83 | 101·8° F. on 64th day. |
| 1104 | S. | 12 | 4 | 3 | 15.6.18 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13–17 | 16 | ... | |
| 1105 | E.A. | 7 | 5 | 3 | 15.6.18 | Apyrexia | 2 | **1*** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13–19 | 18 | ... | |
| 1106 | S. | 13 | ... | ... | 27.7.18 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | ... | Not observed after treatment. |
| 1107 | S. | 12 | 4 | 3 | 6.7.18 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | 100 | |
| 1108 | E.A. | 12 | 5 | 3 | 27.7.18 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | ... | Not observed after treatment. |
| 1109 | S. | 16 | 6 | 5 | 27.7.18 | 1 | 4 | 0 | **2*** | 0 | 0 | 0 | 0 | **1*** | 0 | ... | ... | ... | Not observed after treatment |
| 1110 | S. | 13 | 7 | 5 | 19.5.18 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 16 | ... | |
| 1111 | E.A. | 25 | 5 | 2 | 25.5.18 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | 74 | |
| 1112 | E.A. | 17 | 4 | 2 | 25.5.18 | Apyrexia | 1 | **[cr.]** | **[cr.]** | **[cr.]** | **[cr.]** | 0 | 0 | 0 | 0 | 6–8 | 7 | ... | |
| 1113 | E.A. | 5 | 5 | 2 | 25.5.18 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6–9 | 9 | ... | |
| 1114 | E.A. | 11 | 5 | 2 | 25.5.18 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 10 | ... | |

TABLE XIV—*continued.*

| Number of case | †Place of infection | Interval (in months) between first admission to a hospital with malaria and present treatment | Interval (in months) between leaving infected area and present treatment | Interval (in months) between arrival in England and present treatment | Date of end of treatment | Temperature fell to normal in — days after first dose | Parasites disappeared from cutaneous blood in — days after first dose | Number of febrile paroxysms (parasitic and non-parasitic) and results of blood examinations during treatment — Week of Treatment: 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | Parasitic relapse occurred in — days after cessation of treatment | Febrile relapse (above 100° F.) occurred in — days after cessation of treatment | Observation period (in days) in cases which did not relapse | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1115 | E.A. | 11 | 5 | 2 | 25.5.18 | Apyrexia | 1 | o | o | o | o | o | o | o | o | ... | ... | 31 | |
| 1116 | E.A. | 6 | 4 | 2 | 25.5.18 | 2 | 2 | o | o | o | o | o | o | o | o | 6–12 | 13 | ... | |
| 1117 | S. | 20 | 3 | 3 | 25.5.18 | 1 | 2 | [cr.] | o | o | **1*** | o | o | o | o | 11–12 | 9 | ... | |
| 1118 | E.A. | 9 | 4 | 2 | 25.5.18 | 1 | 2 | o | o | o | o | o | o | o | o | 6 12 | 13 | ... | |
| 1119 | E.A. | 16 | 3 | 2 | 25.5.18 | 1 | 1 | o | o | o | o | o | o | **1*** | o | 20–26 | 26 | ... | 100° F. on 20th day. |
| 1120 | E.A. | 8 | 4 | 2 | 25.5.18 | 1 | 2 | o | o | **2*** | o | o | o | o | o | 6–12 | 14 | ... | |
| 1121 | E.A. | 11 | 4 | 2 | 25.5.18 | Same day | 2 | o | o | o | **2*** | o | o | o | o | 13–19 | 18 | ... | |
| 1122 | E.A. | 10 | 5 | 2 | 25.5.18 | 2 | 3 | o | o | o | o | **1*** | **1*** | o | o | 13–19 | 18 | ... | |
| 1123 | E.A. | 6 | 6 | 3 | 1.6.18 | 4 | 1 | o | o | o | **P** | **1*** | o | o | o | 13–19 | 18 | ... | |
| 1124 | S. | 21 | 5 | 4 | 1.6.18 | 1 | 2 | o | o | o | o | o | o | o | o | 6–12 | 16 | ... | |
| 1125 | S. | 24 | 5 | 4 | 1.6.18 | 1 | 1 | o | o | o | o | o | o | o | o | 6–12 | 27 | ... | |
| 1126 | S. | 22 | 5 | 5 | 1.6.18 | Apyrexia | 2 | o | o | o | o | o | o | o | o | ... | ... | 68 | Influenza on 33rd and 34th days after cessation of treatment. |
| 1127 | S. | 11 | 5 | 4 | 1.6.18 | 1 | 1 | o | o | o | o | o | o | o | o | 14–20 | 21 | ... | |
| 1128 | E.A. | 11 | 5 | 3 | 1.6.18 | 1 | 2 | o | **1*** | o | o | o | o | o | o | 6–12 | 15 | ... | |
| 1129 | E.A. | 10 | 5 | 3 | 1.6.18 | 1 | 2 | o | o | o | o | o | o | o | o | 13–21 | 26 | ... | |
| 1130 | E.A. | 13 | 5 | 3 | 1.6.18 | Apyrexia | 2 | o | o | o | o | o | o | o | o | 41–47 | 48 | ... | |
| 1131 | E.A. | 8 | 6 | 3 | 1.6.18 | 2 | 3* | o | o | o | o | o | o | o | o | 27–43 | 35 | ... | |

TABLE XIV—*continued*.

| Number of case | †Place of infection | Interval (in months) between first admission to a hospital with malaria and present treatment | Interval (in months) between leaving infected area and present treatment | Interval (in months) between arrival in England and present treatment | Date of end of treatment | Temperature fell to normal in — days after first dose | Parasites disappeared from cutaneous blood in — days after first dose | Number of febrile paroxysms (parasitic and non-parasitic) and results of blood examinations during treatment — Week of Treatment: 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | Parasitic relapse occurred in — days after cessation of treatment | Febrile relapse (above 100° F.) occurred in — days after cessation of treatment | Observation period (in days) in cases which did not relapse | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1132 | E.A. | 15 | 4 | 3 | 8.6.18 | 1 | 1 | 0 | 0 | 0 | 0 | 1* | 0 | 0 | 0 | 13–19 | 20 | ... | |
| 1133 | E.A. | 12 | 6 | 3 | 8.6.18 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 29 | ... | |
| 1134 | E.A. | 6 | 4 | 3 | 8.6.18 | 1 | 2 | 0 | 0 | 2* | 0 | 0 | 0 | 0 | 0 | 13–18 | 17 | ... | Febrile attacks in 3rd week due to influenza. |
| 1135 | E.A. | 10 | 4 | 3 | 8.6.18 | Same day | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1–3 | 3 | ... | |
| 1136 | S. | 24 | 6 | 6 | 18.7.18 | Same day | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 14 | ... | Measles on 12th day after cessation of treatment. |
| 1137 | ... | ... | ... | ... | 18.7.18 | 2 | 1–5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1* | 14–20 | 20 | ... | |
| 1138 | S. | 15 | 5 | 4 | 25.7.18 | Same day | 1–4 | 0 | 0 | 0 | 0 | 1* | 2* | 0 | 1* | 15–17 | 16 | ... | |
| 1139 | S. | 26 | 5 | 5 | 25.7.18 | 2 | 3–4 | 1* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7–12 | 12 | ... | |
| 1140 | S. | 25 | 4 | 4 | 25.7.18 | 1 | 1–7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1–8 | 8 | ... | |
| 1141 | S. | 13 | 6 | 5 | 25.7.18 | 1 | 1–5 | 0 | 0 | 1* | 0 | 0 | 0 | 0 | 0 | ... | ... | 40 | |
| 1142 | S. | 17 | 7 | 3 | 25.7.18 | Same day | 1–2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15–16 | 17 | ... | |
| 1143 | S. | 12 | 6 | 6 | 25.7.18 | 1 | 1–3 | 0 | 0 | 1* | 0 | 1* | 2* | 1* | 2* | 7–9 | 7 | ... | |
| 1144 | S. | 18 | 5 | 4 | 25.7.18 | 2 | 1–2 | 1* | 0 | 2 | 2* | 0 | 2* | 2* | 0 | ... | ... | 54 | |
| 1145 | E.A. | 27 | 13 | 12 | 1.8.18 | Apyrexia | 1–2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8–10 | 10 | ... | |
| 1146 | ... | ... | ... | ... | 25.7.18 | 2 | 2–3 | 0 | 0 | 1 | 2 | 3 | 1 | 0 | 0 | 10 | 10 | ... | |
| 1147 | S. | 12 | 6 | 5 | 25.7.18 | 3 | 2 | 0 | 0 | 1* | 0 | 0 | 0 | 2* | 0 | 7–12 | 12 | ... | |
| 1148 | E.A. | 27 | 7 | 4 | 25.7.18 | 2 | 1–2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7–13 | 14 | ... | |

TABLE XIV—*continued.*

| Number of case | †Place of infection | Interval (in months) between first admission to a hospital with malaria and present treatment | Interval (in months) between leaving infected area and present treatment | Interval (in months) between arrival in England and present treatment | Date of end of treatment | Temperature fell to normal in — days after first dose | Parasites disappeared from cutaneous blood in — days after first dose | Number of febrile paroxysms (parasitic and non-parasitic) and results of blood examinations during treatment — Week of Treatment: 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | Parasitic relapse occurred in — days after cessation of treatment | Febrile relapse (above 100° F.) occurred in — days after cessation of treatment | Observation period (in days) in cases which did not relapse | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1149 | E.A. | 19 | 9 | 7 | 25.7.18 | 1 | 2 | 0 | 0 | **2** | 0 | **2***| 0 | 0 | 0 | 7–13 | 14 | ... | |
| 1150 | E.A. | 9 | 3 | 2 | 25.7.18 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8–13 | 18 | ... | |
| 1151 | E.A. | 18 | 10 | 7 | 25.7.18 | 1 | 1–5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8–14 | 14 | ... | |
| 1152 | S. | 23 | 5 | 4 | 25.7.18 | 1 | 1–7 | 0 | 0 | **1*** | **2*** | 0 | **1*** | 0 | 0 | ... | ... | 76 | Low, intermittent temperature throughout. |
| 1153 | S. | 12 | 7 | 5 | 25.7.18 | 1 | 1–6 | 0 | 0 | 0 | 0 | 0 | **1*** | **1*** | **1*** | ... | ... | 93 | 102° F. on 6th, 104° F. on 20th, 102° F. on 45th, 100° F. on 55th days. |
| 1154 | S. | 23 | 5 | 4 | 25.7.18 | Apyrexia | 1 | 0 | 0 | 0 | 0 | 0 | **1*** | 0 | 0 | ... | ... | 71 | 102° F. on 10th, 100° F. on 16th, 25th and 32nd days. |
| 1155 | S. | 16 | 5 | 4 | 25.7.18 | Same day | 1–5 | 0 | 0 | 0 | 0 | 0 | 0 | **2** | 0 | 8–13 | 23 | ... | |
| 1156 | S. | 24 | 8 | 7 | 1.8.18 | 1 | 1–4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8–15 | 15 | ... | |
| 1157 | S. | 22 | 5 | 2 | 25.7.18 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | **1*** | **1*** | **1*** | ... | ... | 77 | 101° F. on 9th, 100° F. on 11th, 13th and 16th days, 102° F. on 24th day. |